

## PATENT ABSTRACTS OF JAPAN

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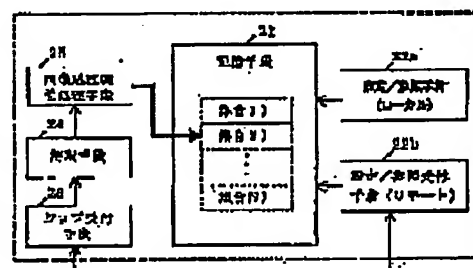
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### (54) IMAGE PROCESSOR AND SYSTEM FOR IMAGE PROCESSING

#### (57)Abstract

**PROBLEM TO BE SOLVED:** To provide an image processor and an image processing system which enable setting and referencing of an image processing attribute or its set.

**SOLUTION:** This image processor is provided with a storing means 21 storing a plurality of sets holding one or more image processing attributes, a setting/referencing means 22a setting/referencing the sets or the image processing attributes, an interpreting means 24 interpreting an instruction received from a client device and specifying the set of designated image processing attributes, and an image processing attribute processing means 25 reading the image processing attributes of the specified set from the storing means and reflecting the image processing attributes on image processing. The image processor can also be provided with a setting/reference receiving means 22b for setting and/or referencing the set or the image processing attributes from the client device.



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CLAIMS

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[Claim(s)]

[Claim 1]An image processing device comprising:

A memory measure for memorizing two or more sets holding one or more image-processing attributes.

Setting out/reference means for setting up and/or referring to said set or an image-processing attribute

An interpretation means to interpret directions received from a client apparatus and to specify a set of a specified image-processing attribute.

An image-processing attribute processing means which reads the image-processing attribute of said specified set from said memory measure, and is made to reflect in image processing.

[Claim 2]The image processing device according to claim 1 provided with setting-out/reference receiving means for setting up and/or referring to said set or an image-processing attribute from a client apparatus.

[Claim 3]An image processing device which memorizes two or more sets holding one or more image-processing attributes.

A client apparatus connected with said image processing device in a network.

It is the image processing system provided with the above, and said image processing device makes said image-processing attribute which shifts and belongs to that set to be memorized reflect in image processing according to directions from said client apparatus.

[Claim 4]The image processing system according to claim 3, wherein setting out and/or reference of said set or an image-processing attribute are performed by operation of a navigational panel of said image processing device.

[Claim 5]The image processing system according to claim 4 characterized by enabling it to

specify a set to make display said two or more sets on a screen of said navigational panel, and set up by operation of said navigational panel on said screen.

[Claim 6]The image processing system according to claim 3, wherein setting out and/or reference of said set or an image-processing attribute are performed by a remote control from said client apparatus.

[Claim 7]The image processing system according to claim 6 characterized by enabling it to specify a set to access said image processing device using a web browser of said client apparatus, make display said two or more sets on a screen of said client apparatus, and set up on said screen.

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DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention]This invention relates to the image processing device and image processing system which perform picture \*\*\*\* according to specification of an image-processing attribute.

[0002]

[Description of the Prior Art]In image processing devices, such as a printer, specification of image-processing attributes, such as a paper feed tray to be used and a paper size to print, is usually performed by operation of an operator. Although the navigational panel of an image processing device can perform this operation, it is possible also from the client apparatus elsewhere connected to the image processing device via the network. In such a system, the image processing device can receive the information concerning the image-processing attribute transmitted from the client apparatus with job data, and can perform picture \*\*\*\* (printing or FAX transmission) according to the image-processing attribute.

[0003]Specification of an image-processing attribute is performed as follows, for example. One method is a method of enumerating all required image-processing attributes and directing image processing to the image processing device side by the client apparatus side. Any one of the sets of these is validated, and other methods include the method of directing image processing from the client apparatus side, while carrying out multidata input of the set of an image-processing attribute to the image processing device side.

[0004]

[Problem(s) to be Solved by the Invention]However, in order to have to enumerate all desired image-processing attributes, specification is complicated and it is easy to mistake it by the method of directing image processing from the client apparatus side as mentioned above. Although it is moreover dependent on a client apparatus or its OS, when there is restriction of

a command statement Takashi row number which can be specified, there is a problem that all cannot specify a desired image-processing attribute.

[0005]Unless setting out by the side of an image processing device is changed in the method of setting up a set of an image-processing attribute by the image processing device side as mentioned above, since that from which a set of an image-processing attribute differs cannot be specified, it is inconvenient.

[0006]Therefore, the purpose of this invention is to provide the image processing device and image processing system which can perform easily an image-processing attribute, or setting out and reference of the set.

[0007]

[Means for Solving the Problem]A memory measure for the above-mentioned purpose to memorize two or more sets holding one or more image-processing attributes, Setting out/reference means for setting up and/or referring to said set or an image-processing attribute, It is attained by image processing device provided with an interpretation means to interpret directions received from a client apparatus and to specify a set of a specified image-processing attribute, and an image-processing attribute processing means which reads said specified image-processing attribute of a set from said memory measure, and is made to reflect in image processing. Here, said image processing device can be further provided with setting-out/reference receiving means for setting up and/or referring to said set or an image-processing attribute from a client apparatus.

[0008]An image processing device with which an image processing system concerning this invention memorizes two or more sets holding one or more image-processing attributes, It has a client apparatus connected with said image processing device in a network, and said image processing device is constituted so that said image-processing attribute which shifts and belongs to that set to be memorized may be made to reflect in image processing according to directions from said client apparatus.

[0009]Here, setting out and/or reference of said set or an image-processing attribute can be performed by operation of a navigational panel of said image processing device. In this case, it is constituted so that a set to make display said two or more sets on a screen of said navigational panel, and set up by operation of a navigational panel can be specified on said screen. Said setting out and/or reference can also be performed by a remote control from a client apparatus. In this case, said image processing device is accessed using a web browser of a client apparatus, and said two or more sets are displayed on a screen of said client apparatus, and it is constituted so that a set to set up can be specified on said screen.

[0010]

[Embodiment of the Invention]Drawing 1 is a figure showing the example of composition of the image processing system provided with the image processing device concerning this invention,

and the client apparatus which performs printing directions to it. In this example, as shown in a figure, the image processing devices 1 and 2, such as a printer, are connected to the client apparatus 4 and 5, such as a computer terminal, via the network 3, respectively. In such composition, the printing directions sent from the client apparatus 4 or 5 are received by the image processing device 1 or 2 via the network 3, and the image processing device 1 or 2 performs a printing job according to the printing directions.

[0011]In this example, the image processing devices 1 and 2 have memorized two or more sets which hold one or more image-processing attributes, respectively. And according to the printing directions from the client apparatus 4 and 5, the image processing devices 1 and 2 make the image-processing attribute which shifts and belongs to that set to be memorized inside reflect in image processing, and output a picture. When setting up and/or referring to the various data of an image-processing attribute, a set, etc. which the image processing devices 1 and 2 hold, it enables it to use both a local means (navigational panel) and remote means (web browser etc.). Hereafter, these points are explained in full detail.

[0012]Drawing 2 is a block lineblock diagram showing one example of the image processing device concerning this invention. This device is provided with the following.

The memory measure 21 for memorizing two or more sets holding one or more image-processing attributes, as shown in a figure.

Setting out / reference means 22a for it to be local, and set up and for a navigational panel refer an image-processing attribute and a set

Setting-out/reference receiving means 22b for a web browser etc. to set up and refer this image-processing attribute and set by a remote.

The job receiving means 23 for receiving job data and an image-processing attribute from a client apparatus, An interpretation means 24 to interpret the directions received from the client apparatus and to specify a set of the specified image-processing attribute, and the image-processing attribute processing means 25 which reads the image-processing attribute of the specified set from the memory measure 21, and is made to reflect in image processing.

Here, the memory measure 21 has the set 1 of an image-processing attribute - N. The thick line arrow in drawing 2 shows a directions course, and a small-gage wire arrow shows a data (+ directions) course.

[0013]Image processing by this device is performed as follows. First, the job receiving means 23 receives the directions which specified the set of job data and an image-processing attribute from the client apparatus. The interpretation means 24 specifies a set of the specified image-processing attribute from this received result. Here, since that is understood by the interpretation means 24 when the set of the image-processing attribute is not specified, it becomes the usual image processing henceforth. On the other hand, when the set of the image-processing attribute is specified, the image-processing attribute processing means 25

reads the image-processing attribute which is an element of the specified set out of the set 1 memorized by the memory measure 21 - N, and performs processing for making it reflected in image processing.

[0014]Drawing 3 is a figure for explaining the relation between the set 1 - N, and the image-processing attribute 1 which is the element - M. Drawing 4 is a figure showing the example of an image-processing attribute and its image processing attribute value. As shown in drawing 4, when an image-processing attribute is a "paper feed tray", image processing attribute values are "automatic, the tray 1, and tray 2 ...", and similarly, when the attribute is a "paper size", attribute values are "A3, A4, A5, B4, B5 ..."

[0015]Therefore, in drawing 3, in order to set up the element of each set 1 - N, it carries out by specifying one image processing attribute value about each for every set out of two or more image-processing attributes as shown in drawing 4. For example, about the set 1, as shown in drawing 3, the image-processing attribute 1 concerning a paper feed tray is set up as the image-processing attribute 2 concerning "automatic" and a paper size "does not carry out" the image-processing attribute M concerning "A4", ..., a punch.

[0016]Setting out and reference of the element of each set are performed via setting out / reference means 22a, or setting-out/reference receiving means 22b. Setting out / reference means 22a is for being local and performing setting out and reference from a navigational panel, and, on the other hand, setting-out/reference receiving means 22b is for performing it from a client apparatus via a web browser etc. by a remote. The setup instruction and the information set which are inputted from this setting out / reference means 22a, or setting-out/reference receiving means 22b are set as the applicable part within the memory measure 21. In order to perform setting out and reference by the web browser of a client apparatus, a means to set up and/or refer to the data which an image processing device holds to an image processing device according to a http server function and the demand on a http protocol is formed.

[0017]Next, the example of setting out is explained. In the following examples, one image processing device 1 is set up by setting out / reference means 22a, and the image processing device 2 of another side is set up by setting-out/reference receiving means 22b. In setting up the image processing device 1 by setting out / reference means 22a, it sets up an operator in the following procedures first using the navigational panel of the image processing device 1. That is, the key of a navigational panel is operated suitably, a screen which is shown in drawing 3 which sets up a set of an image-processing attribute is displayed, and one of the set 1 to set up - the N is specified. Then, since the value set to the image-processing attribute used as an element is displayed, when changing a preset value, a key is operated suitably and changed. displaying another image-processing attribute and its preset value by operating a key suitably -- being only required -- the above-mentioned operation -- \*\*\*\*\* -- all the image-

processing attributes used as the element of a set are set as a desired value by things. It is \*\*\*\*\* about the operation same to set up other sets.

[0018]On the other hand, in setting up the image processing device 2 by setting-out/reference receiving means 22b, it sets up an operator in the following procedures first using the web browser on a client apparatus. That is, URL of the image processing device 2 is inputted into a web browser, and the image processing device 2 is accessed. A hyperlink etc. are clicked suitably, a page as shown in drawing 3 for setting up a set of an image-processing attribute is displayed, and a set to set up is clicked. Then, since the list of groups of the image-processing attribute and preset value which are the elements of the set is displayed, when changing a preset value, a desired check box and radio button are clicked, or a desired choice is chosen from a selection menu. Thereby, a preset value is changed. This operation is \*\*\*\*\* (ed) and all the image-processing attributes used as the element of a set are set as a desired value. It is \*\*\*\*\* about the operation same to set up other sets. When selection is completed, the contents set up on the web browser are made to reflect in the image processing device 2 by clicking a registering button.

[0019]A set of the image-processing attribute which changes in the two image processing devices 1 and 2 with such operations, respectively as shown in drawing 5 (a) and (b) is set up. For example, as shown in the figure (a), "A3" and a paper kind are set up for "automatic" and a paper size, and, as for the set 1 of the image processing device 1, a "center tray" and double-sided specification are set [ a paper feed tray ] up for a "regular paper" and a discharging destination tray like "one side." As shown in the figure (b), "A4" and a paper kind are set up for "automatic" and a paper size, and, as for the set 1 of the image processing device 2, a "center tray" and double-sided specification are set [ a paper feed tray ] up for "paper of fine quality" and a discharging destination tray like "one side", for example.

[0020]Although directions, the references before it, and those examples of image processing which specified the set of <directions, the references before it, and those examples of image processing which specified the set of the image-processing attribute>, next an image-processing attribute are explained, about reference, it is the same as that of the case of setting out. The operator of the client apparatus 1 assumes that the document is printed using a set of the always same image-processing attribute by the formatted job. If it turns out that the set of this image-processing attribute is set up as the set 1 of the image processing device 1, a document name, the image processing device 1, and the set 1 will be inputted and directed after a printing directive command from the character UI terminal of a client apparatus. Thereby, a desired output can be obtained.

[0021]When there is a document in which "A4" and a paper kind print with "paper of fine quality", and double-sided specification wants to print a paper size by "the left and \*\*\*\*\*", the operator of the client apparatus 2, Setting-out/reference receiving means 22b of the image



processing device 2 was accessed using the web browser, and when the "set" set as the image processing device 2 was referred to, there was no desired thing. However, since the desired thing is set up as the set 2 if the image processing device 1 is referred to, a document name, the image processing device 1, and the set 2 are inputted and directed after a printing directive command from the character UI terminal of a client apparatus. Thereby, a desired output can be obtained.

[0022]When a <processing of image processing device when the directions which specified the set of image-processing attribute are received> image processing device receives the directions which specified the set of the image-processing attribute, processing is performed as follows. First, when the job receiving means 23 receives job data and an image-processing attribute, the cotton of the image-processing attribute is carried out to the interpretation means 24, and a set of the specified image-processing attribute is specified. Since that is understood here when the set of the image-processing attribute is not specified, it becomes the usual image processing henceforth. When the set of the image-processing attribute is specified, processing for the image-processing attribute processing means 25 reading the image-processing attribute which is an element of the specified set from the memory measure 21, and making it reflected in image processing is performed.

[0023]Thus, in this invention, if the set which holds a different image-processing attribute as an element is set up a priori as required within [ which can be set up ] a number, when directing image processing from a client, a desired output can be obtained only by specifying either of the sets set up. Therefore, the complicatedness of image-processing directions and the possibility of a directions error are mitigable, holding the abundance of the combination of an image-processing attribute.

[0024]It also becomes an advantage not to need a device/function special to the client apparatus side. Directions of a job are character UI and setting out and/or reference can be performed by a web browser. Since directions with a client apparatus are made simpler, functions, such as graphical UI, can be added.

[0025]

[Effect of the Invention]According to this invention, the image processing device and image processing system which can perform easily an image-processing attribute, or setting out and reference of the set can be obtained.

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## DESCRIPTION OF DRAWINGS

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### [Brief Description of the Drawings]

[Drawing 1]It is a figure showing the example of composition of the image processing system provided with the image processing device concerning this invention, and the client apparatus which performs printing directions to it.

[Drawing 2]It is a block lineblock diagram showing one example of the image processing device concerning this invention.

[Drawing 3]It is a figure for explaining the relation between the set 1 - N, and the image-processing attribute 1 which is the element - M.

[Drawing 4]It is a figure showing the example of an image-processing attribute and its image processing attribute value.

[Drawing 5](a) and (b) are the figures showing the example of a set of the image-processing attribute set as a different image processing device, respectively.

### [Description of Notations]

1 and 2 Image processing device

3 Network

4, 5 client apparatus

21 Memory measure

22a Setting out/reference means

22b Setting-out/reference receiving means

23 Job receiving means

24 Interpretation means

25 Image-processing attribute processing means

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[Translation done.]

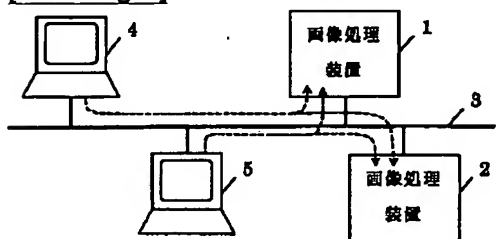
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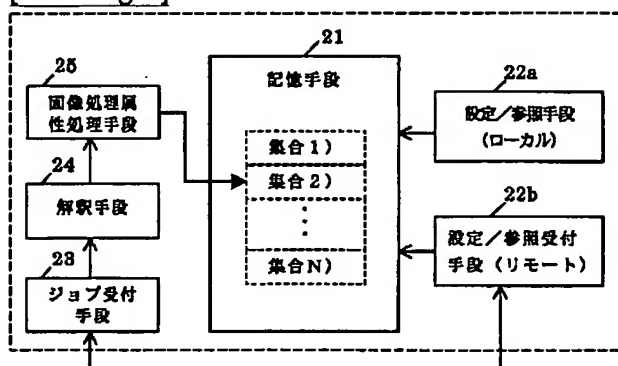
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## DRAWINGS

[Drawing 1]



[Drawing 2]



[Drawing 3]

	集合1)	集合2)	...	集合N)
画像処理属性 1)	自動			
画像処理属性 2)	A 4			
...	...			
画像処理属性 M)	しない			

[Drawing 4]

画像処理属性	画像処理属性値
給紙トレイ	自動、トレイ 1、トレイ 2、...
用紙サイズ	A 3、A 4、A 5、B 4、B 5、...
用紙種類	上質紙、普通紙、...
排出先トレイ	センタートレイ、サイドトレイ、...
両面指定	両面左とじ、両面上とじ、片面、...
ステープル	しない、左上シングル、...
パンチ	しない、上辺、左辺、...
⋮	⋮
⋮	⋮
⋮	⋮

**[Drawing 5]**

(a) 画像処理装置 1

	集合 1)	集合 2)	...
給紙トレイ	自動	自動	
用紙サイズ	A 3	A 4	
用紙種類	普通紙	上質紙	
排出先トレイ	センタトレイ	サイドトレイ	
両面指定	片面	両面左とじ	

(b) 画像処理装置 2

	集合 1)	...	...
給紙トレイ	自動		
用紙サイズ	A 4		
用紙種類	上質紙		
排出先トレイ	センタトレイ		
両面指定	片面		

[Translation done.]